

REMARKS

Claims 1-42, 48, 65-82, 84-86, and 87-107 are pending in this application. In this response, claims 1, 48, 65, 69, 75 and 96 are amended and new claims 108-119 added.

Election Requirement and Response to Election Requirement

As an initial matter the status of the claims under examination and withdrawn must be clarified. In the prior response to the election requirement, filed October 22, 2008, applicant made the following election:

"Election

In response to the election requirement, Applicant elects the species of animal processing waste for examination at this time. Claims 26, 30, 75-82, 84-86, and 105 read on the elected species. Claims 1-19, 21, 40-42, 48, 87-104 are generic."

Oct. 22, 2008, Response, p. 9. However, in spite of this election, the present office action mistakenly includes the generic claims in the listing of the claims that were withdrawn and the rejections do not purport to address the generic claims other than claim 1.

In light of this apparent error in listing of the claims, Applicants' representative called the Examiner on January 21, 2009 seeking clarification. In the telephone interview with the Examiner, the Examiner stated that he did examine at least the independent generic claims and that claims such as claims 1 and 96 should have been stated to have been examined and rejected for the same reasons that the claims dependent thereon were rejected. It was agreed that we would address this by referencing the January 21, 2009 telephone conference in the response to the office action and the Examiner's agreement that those claims should have been stated to have been examined.

Based on the conference with the Examiner, as stated above, it is therefore Applicants' understanding that generic claims 1-19, 21, 40-42, 48, 87-104 were examined and the grounds for rejection of those claims is as stated for the other claims rejected on prior art grounds in the office action. The response to the office action will thus treat these claims as such.

With respect to the new claims added herein, claims 116 and 117 read on the elected species in that they depend from species claim 75, and claims 108-115 and 118-119 are generic in that they depend from generic claims.

Double Patenting Rejection

The obviousness-type double patenting rejection over U.S. Patent No. 7,310,060 is respectfully traversed. In view of the amendments to independent claims 1, 75 and 96, the rejected claims now contain limitations that are not suggested or taught by the claims of the '060 Patent. For example, steps such as heating to a first temperature to create a conditioned slurry and then reacting the conditioned slurry at a second temperature as recited in amended claims 1 and 75 are not suggested by the claims of the '060 patent. With respect to claim 96, again, heating to a first temperature to create a conditioned slurry, followed by subjecting the conditioned slurry to temperatures and pressures sufficient to produce decomposition and hydrolysis reactions in the conditioned slurry are also not suggested by the claims of the '060 patent.

For these reasons, the double patenting rejection is overcome and may be withdrawn.

Rejection Under 35 USC 102

The rejection of claims 1 and 26 as anticipated by USP 4,049,740 to Lang is respectfully traversed. It is clear that claim 1 as amended is not anticipated by Lang. Lang does not disclose a heating step at a first temperature that causes breakdown of components in the slurry to produce conditioned slurry as now claimed, followed by a reacting step at a temperature sufficient to hydrolyze materials in the conditioned slurry. Lang discloses only steps related to preparing a slurry of waste material (from which non-friable materials such as plastics are removed contrary to the present invention), subsequently hydrolyzing the slurry, fermenting the hydrolyzed materials and various separation steps. The combination and sequence of steps now recited in amended claim 1 is not disclosed in Lang and claim 1 and the claims dependent thereon are thus patentable over that reference.

Rejections Under 35 USC 103

The rejection of claims 30, 75-86 and 105, as well as generic claims 2-19, 21, 40-42, 48, 87-104, as discussed above, as obvious over Lang is respectfully traversed. The differences between the claims of the instant application and Lang are far more than simply a difference in feedstock and temperatures as asserted by the Examiner. Fundamentally, the present invention as claimed involves preparation of a slurry, heating of the slurry to create a conditioned slurry,

reacting of the slurry at a temperature to produce a hydrolysis reaction in the conditioned slurry, separating components of the slurry after hydrolysis and conversion of the separated components into useful products including oil by steps such as further separations and/or further reactions. In contrast, Lang discloses slurry preparation, hydrolysis, filtration, fermentation, distillation and water removal. Thus, the “fuel” produced by Lang is an alcohol, specifically ethanol, not oil.

Turning to the independent claims under consideration, each of claims 1 and 75 recite heating the slurry to a temperature sufficient to breakdown components of the slurry as a separate step before reacting of the slurry. Lang does not teach or suggest such a separate heating step before its hydrolysis step. Independent claim 48 recites passing the slurry through a heat exchanger to produce a conditioned slurry before the reacting step. This is also not suggested by Lang. Claim 96 recites that the slurry is first heated to a temperature sufficient to limit biological activity before subjecting to conditions sufficient to produce decomposition and hydrolysis reactions. Again, a sequence of steps not suggested by Lang.

For these reasons alone, the claims not obvious in light of Lang.

Moreover there is no support whatsoever for the Examiner’s contention that it would have been obvious to convert the product of Lang to a hydrocarbon oil. Lang specifically includes a fermentation step in order to produce alcohol as a fuel product, specifically ethanol. This is a clear teaching away from producing hydrocarbon oils. Production of oil rather than ethanol would require elimination of the fermentation step or a subsequent unknown treatment of the ethanol to convert it to an oil. However, there is no reason or motivation to do so because Lang teaches that the process is complete and a fuel produced in the form of ethanol. The Examiner’s assertion of a conversion of the Lang product to hydrocarbon oils is unsupported speculation. For these additional reasons, claims 4, 48, 75, 96 and the claims dependent thereon are in patentable form.

Further limitations of the claims also distinguish Lang. For example claims 75, 110 and 118 recite a preliminary heating step in which the temperature of the slurry is initially elevated to a point sufficient to cause cessation of biological material in the slurry. This additional preheating step is not taught or suggested by Lang. Moreover, claim 110 recites that the slurry is contained after this preliminary heating and claim 112 further specifies that it is contained in a first storage tank for the initial heating and as second storage tank for the next heating step

before the reacting. These steps are also not suggested by Lang and thus represent further reasons for patentability.

For all of the above reasons, generic claims 1-19, 21, 40-42, 48, 87-104 and 108-119 as well as species claims 26, 30, 75-82, 84-86, and 105 are patentable over the cited reference and in form for allowance.

Further Election

In a further attempt to expedite the prosecution of the instant application, Applicant repeats the following elections in advance: Rubber, Mixed Plastics, and PVC. Claims reading on the species Rubber are 22, 23, 65, 66, 68, and 107. Claims reading on the species Mixed Plastics are 22, 69-71, and 106. Claims reading on the species PVC are 28, 29, and 106. The generic claims remain as identified above.

Applicant respectfully requests that, after completing the search for the currently elected Animal Processing Waste, if the current species is found allowable, each other species be searched in the order set forth above without the need for subsequent written election requirements. Alternatively, if necessary, Applicant's representative will elect these species in the stated order by telephone to avoid the need for further written election requirements.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application as a whole is in form for allowance. However, should any new issues arise, in order to expedite future prosecution, the Examiner is respectfully requested to contact the undersigned by telephone at 802-846-8305.

No additional fees are believed to be due in connection with the filing of this response. To the extent it is determined that any additional fees are due, please charge such additional fees to Downs Rachlin Martin PLLC Deposit Account No. 04-1588.

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